



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,705	09/07/2000	Magnus Bjorsne	3525-95	6406

7590 08/27/2002

Nixon & Vanderhye  
1100 North glebe Road 8th Floor  
Arlington, VA 22201-4714

EXAMINER

ROBINSON, BINTA M

ART UNIT	PAPER NUMBER
----------	--------------

1625

DATE MAILED: 08/27/2002

18

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/623,705

Applicant(s)

BJORSNE ET AL.

Examiner

Binta M. Robinson

Art Unit

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 19-27 is/are pending in the application.
- 4a) Of the above claim(s) 21-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 19, 20 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

### **Detailed Action**

The improper Markush rejection of claims 1 and 3-20 is withdrawn in light of applicant's amendment at paper no. 17/D. The 112, second paragraph rejection of claims 13, 14, 17, 18, and 19 are withdrawn in light of applicant's amendment at paper no. 17/D. The 102 (b) rejection of claims 14-18 are withdrawn in light of applicant's amendment at paper no. 17/D.

(old objections and rejections)

1. Applicant is advised that should claim 1 be found allowable, claim 15 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

2. Applicant is advised that should claim 1 be found allowable, claim 16 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Art Unit: 1625

Claim(s) 1, 3-13, 19-20 in part are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. In claim 20 in part, the term "derivative" is indefinite. It is unclear as to compounds are being claimed.

C. In claim 1, lines 4-6, page 72, and all other occurrences in claims 3-20, the phrase "(all of which are optionally substituted and/or terminated (as appropriate) by one or more substituents selected from OH, halo, cyano, nitro, C1-4 alkyl and/or C1-4 alkoxy)" is vague and ambiguous. How can R1 be terminated by more than one terminating group, if a terminating group, by definition, should terminate a radical? The phrase "(as appropriate)" in line 5, page 72 of claim 1 is also vague and ambiguous.

D. In claim 1, lines 22-23, page 74, and all other occurrences throughout claims 3-20, the phrase "(in which latter three groups" is indefinite. The phrase "A represents a single bond, C1-6 alkylene... -OH groups);" between lines 21-24 on page 74, should be rewritten in the form "A is \_\_\_\_, \_\_\_\_, or \_\_\_\_, or \_\_\_\_, \_\_\_\_, and \_\_\_\_, which are optionally substituted with A and B, or \_\_\_\_, and \_\_\_\_, which are attached to the bispidine nitrogen..."

E. In claim 11, line 3, page 60, the phrase "in which latter two cases p is 1, 2, or 3)" is indefinite. The term "wherein" is suggested.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-13, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable Lubisch et. al. . (See Reference N, EP 0308843).

Lubisch et. al. teaches the instant compound as shown in Formula I, where R is halogen, C1-C4 alkoxy, R1 is Halogen, C1-C4 alkoxy, Z is C1-C4 alkylene, R3 is H, C1-C4 alkyl, and R5 is C1-C4 alkyl. At page 5, rightmost column, lines 30-35, see formula I. The difference between the prior art compound and the instantly claimed compounds is the teaching of a generic compound versus a disclosed species. It would have been obvious to one of ordinary skill in the art to select various known radicals within a genus to prepare structurally similar compounds. Accordingly, the compounds are deemed unpatentable therefrom in the absence of a showing of unexpected results for the claimed compounds over those of the generic prior art compounds.

(new rejections)

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-13, 19-20, and 27 are rejected under 35 U.S.C. 112, first paragraph, because the specification, does not provide enablement for all-CH<sub>2</sub>)a-Het1 optionally substituted by one or more substitutents selected from the group consisting of -OH, halo, cyano, nitro, C1-4 alkyl and C1-4 alkoxy, wherein Het1 equals all five to ten-

Art Unit: 1625

membered heterocyclic ring containing one or more heteroatoms selected from the group consisting of oxygen, nitrogen and sulfur and which also optionally includes one or more =O substituents,  $-(CH_2)_d$ -Het2, optionally substituted by one or more substituents selected from the group consisting of -OH, halo, cyano, nitro, C1-4alkyl, C(O)R13, C(O)OR14 and -N(H)S(O)R15, and aryl or  $-(CH_2)$ -aryl which can be optionally substituted by one or more substituents selected from halo, nitro, C1-6 alkyl, and C1-6 alkoxy, or Het2 and Het3 squalling all five to ten-membered heterocyclic rings containing one or more heteroatoms selected from the group consisting of -OH, cyano, halo, amino, nitro, C1-6 alkyl (optionally terminated by N(H)C(O)OR20a), C1-6 alkoxy, -C(O)N(H)R21, -N(H)S(O)R23 and -OS(O)R24, Het 4 equaling all five to ten-membered heterocyclic rings containing one or more heteroatoms selected from the group consisting of oxygen, nitrogen and sulfur, and which also optionally includes one or more =O substituents, A, where in the latter three groups of the substituents it can represent, the  $-(CH_2)_m$ - group is attached to the bispidine nitrogen atom and which latter four groups are optionally substituted by one or more -OH groups. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. The claims as recited are broader than the scope of enablement. Heteroaryl or aryl rings cannot support electron-withdrawing groups such as cyano or nitro in the ortho or meta position, although the applicant claims that Het1, Het2, and aryl moieties can be substituted by one or more electron withdrawing groups. The specification lacks direction or guidance for placing all of the alleged products in the

Art Unit: 1625

possession of the public without inviting more than routine experimentation. The applicant is referred to *In re Wands*, 858 f.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) which includes the incorporation of the 8 factors recited in *Ex parte* Foreman 230 USPQ 546 (Bd. Of App. And Inter 1986).

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue". These factors include 1) the breadth of the claims, 2) the nature of the invention, 3) the state of the prior art, 4) the level of one of ordinary skill, 5) the level of predictability in the art 6) the amount of direction provided by the inventor 7) the existence of working examples, and 8) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. In *re Wands*, 858 F. 2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

In terms of breadth of the claims, R1, Het1-Het4, A, and aryl, encompass a much wider Markush grouping of radicals than those radicals tested. In terms of the nature of the invention, these compounds are useful in the treatment of cardiac arrhythmias. In terms of the fifth Wands factor, the level of predictability in the art is low since these compounds are not tested for their effects on the actual diseases claimed. In terms of the sixth Wands factor the amount of direction provided by the inventor is poor, because the applicant does not conduct tests for any compounds where the radicals can be the Het1-Het4 moieties claimed, or for A, where in the latter three groups of the substituents it can represent, the  $-(CH_2)_m-$  group is attached to the

Art Unit: 1625

bispidine nitrogen atom and which latter four groups are optionally substituted by one or more –OH groups. In terms of the seventh Wands factor, the applicant does not have examples where radicals can be the Het1-Het4 moieties claimed, or for A, where in the latter three groups of the substituents it can represent, the –(CH<sub>2</sub>)<sub>m</sub>- group is attached to the bispidine nitrogen atom and which latter four groups are optionally substituted by one or more –OH groups. In terms of the 8<sup>th</sup> Wands factors, undue experimentation would be required to make or use the invention based on the content of the disclosure due to the breadth of the claims, the level of predictability in the art of the invention, and the poor amount of direction provided by the inventor. Taking the above factors into consideration, it is not seen where the instant claim is enabled by the instant application.

8. The elected species appears to be allowable.

9. The EP 0308848 A2 reference cited as an X reference on the international search report appears to be an X reference

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binta M. Robinson whose telephone number is (703) 306-5437. The examiner can normally be reached on M-F (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alan Rotman can be reached on (703)308-4698. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7922 for regular communications and (703)308-7922 for After Final communications.

Art Unit: 1625

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0193.

Binta M. Robinson

August 20, 2002

Handwritten signature of Alan L. Rotman in cursive script.

**ALAN L. ROTMAN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1600**